

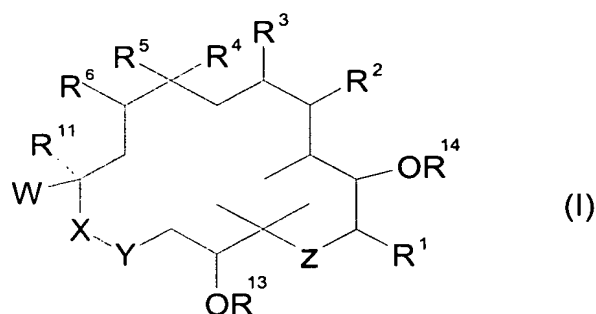
Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) Use of at least one epothilone or derivative thereof as an active ingredient for manufacturing a medicament for use in the treatment of disease(s) involving a neuronal connectivity defect.

2. (Original) Use of at least one epothilone or derivative thereof as an active ingredient for manufacturing a medicament for use in the treatment of schizophrenia or autism.

3. (Currently Amended) Use according to claim 1-~~or~~2, wherein the epothilone is a compound of formula (I):



wherein:

R¹ represents H, alkyl, alkenyl or alkynyl in C₁-C₆, aryl in C₆-C₁₀, aralkyl in C₇-C₁₅,

R², R³ represents each H or form together C=C double bond,

R⁴ represents H, C₁-C₆-alkyl in particular CH₃, fluoro substituted C₁-C₆ alkyl in particular CF₃ or CFH₂,

R⁵ and R⁶ form a C=C double bond or a three membered ring including O, S, NR⁷, CR⁸R⁹ with R⁷ being C(O)R¹⁰, SO₂R¹⁰ and R⁸, R⁹, R¹⁰ being independently H, halogen, C₁-C₆ alkyl, C₆-C₁₀ aryl, C₇-C₁₅ alkaryl,

R^{11} being H, C_1 - C_6 alkyl, C_6 - C_{10} aryl, C_7 - C_{15} alkaryl, and in particular H,

W represents $C(R^{12})=CH$, $C(R^{12})=C(CH_3)$, $C(R^{12})=CF$ or a bicyclic aromatic/heteroaromatic radical preferably a 2-methylbenzothiazol-5-yl radical, or a 2-methylbenzoxazol-5-yl radical or a quinolin-7-yl radical, with R^{12} representing a heteroaromatic radical, preferably a 2-pyridinyl, a 2-substituted thiazol-4-yl or a 2-substituted oxazol-4-yl radical with substitution in 2-position by C_1 - C_6 alkyl, pseudohalogen like CN or N_3 , S- C_1 - C_4 -alkyl, O- C_1 - C_6 -alkyl, or C_1 - C_6 -alkyl substituted by OH, amino, halogen, pseudohalogen such as $-NCO$, $-NCS$, $-N_3$, O-(C_1 - C_6)-acyl, O-(C_1 - C_6)-alkyl or O-benzoyl,

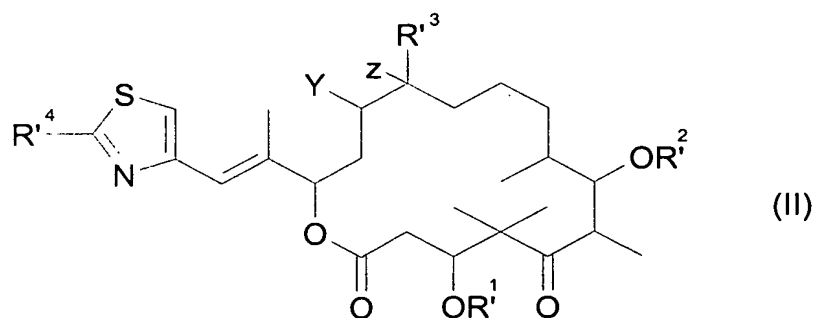
X-Y represents O-C(=O), O- CH_2 , CH_2 -O, CH_2 -C(=O),

Z represents C=O, S, S=O, SO_2 ,

R^{13} and R^{14} represents independently from each other H, C_1 - C_6 -alkyl, $(CO)R^{15}$ or C_{1-4} -trialkylsilyl, with R^{15} being H, C_1 - C_6 -alkyl, fluoro substituted C_1 - C_6 -alkyl,

and pharmaceutically acceptable salts thereof.

4. (Currently Amended) Use according to ~~any one of claims 1 to 3~~ claim 1, wherein the epothilone is a derivative of following formula (II):



wherein:

R'^4 represents an C_1 - C_6 alkyl or substituted C_1 - C_6 alkyl with substituents as F, Cl, Br or I, pseudohalogen, such as $-NCO$, $-NCS$, $-N_3$, NH_2 , OH, O-(C_1 - C_6)-acyl, O-(C_1 - C_6)-alkyl or O-benzoyl,

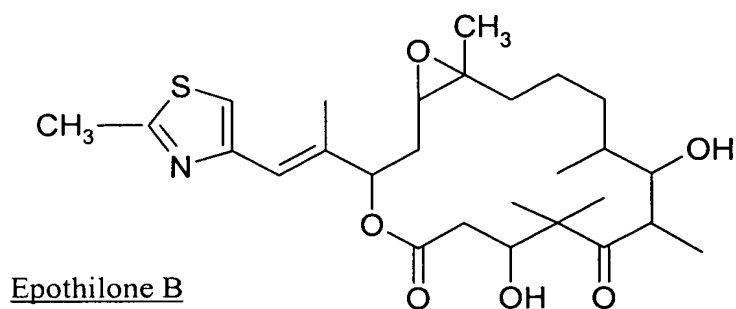
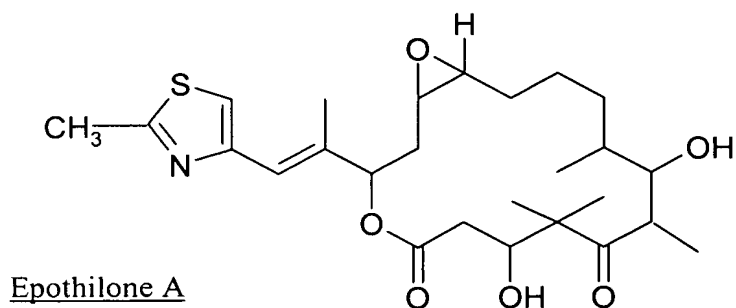
R'^1 and R'^2 are independently from each other H, C_1 - C_6 -alkyl, $(CO)R'^5$ with R'^5 being H, C_1 - C_6 -alkyl, C_1 - C_6 -fluoroalkyl or C_{1-4} -trialkylsilyl,

R'^3 represents H, C_1 - C_6 -alkyl, halogen substituted C_1 - C_6 -alkyl, and

Y and Z form either a C=C double bond or are the O atom of an epoxide and pharmaceutically acceptable salts thereof.

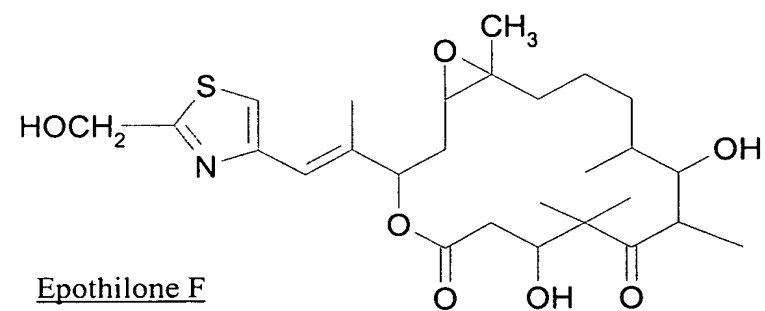
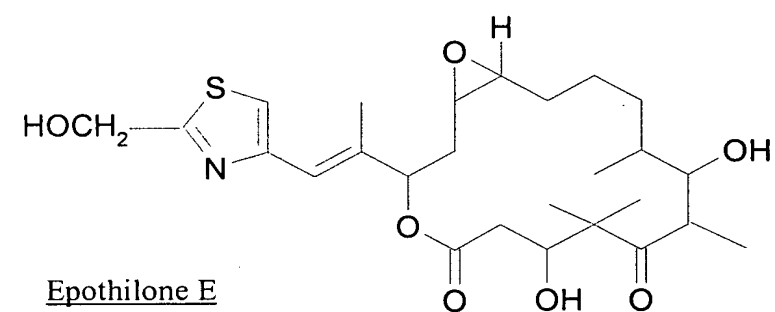
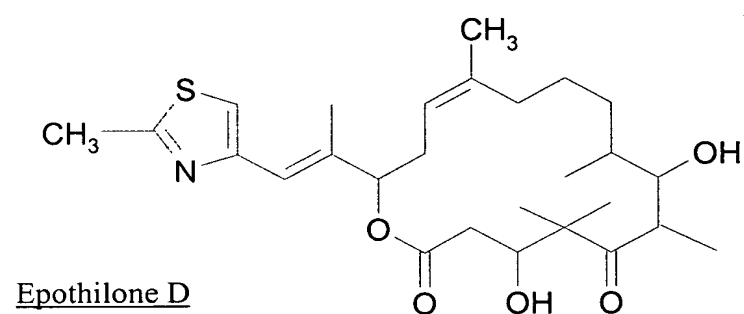
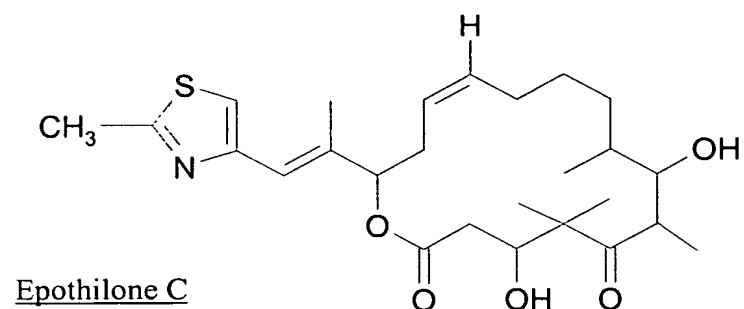
5. (Original) Use according to claim 4, wherein the epothilone is at least a derivative of formula (II) wherein R'^1 , R'^2 , R'^3 represents independently from each other, H, C_1 - C_6 -alkyl in particular CH_3 , C_1 - C_6 fluoroalkyl in particular CF_3 and Y and Z form either a C=C double bond or are together the O atom of an epoxide.

6. (Currently Amended) Use according to ~~any one of claims 1 to 5~~claim 1, wherein epothilone includes at least the natural epothilone A or B of following formula:



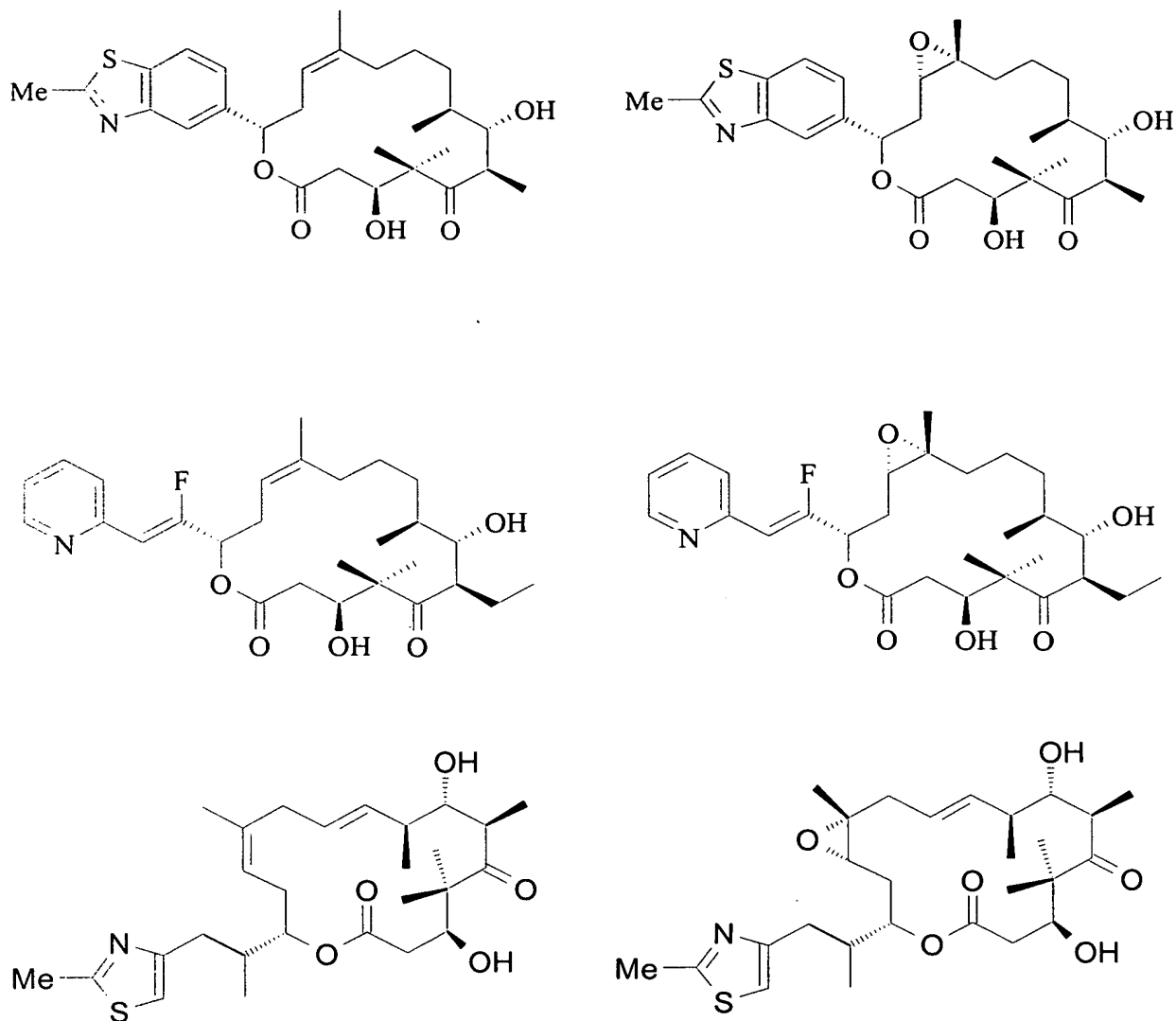
or a pharmaceutically acceptable salt thereof.

7. (Currently Amended) Use according to ~~any one of claims 1 to 6~~claim 1, wherein epothilone includes at least one synthetic epothilone C, D, E or F of following formula:



in particular epothilone D and pharmaceutically acceptable salts thereof.

8. (Currently Amended) Use according to ~~any one of claims 1 to 7~~claim 1, wherein epothilone includes at least one synthetic epothilone of following formula:



9. (Currently Amended) Use according to ~~any one of claims 1 to 8~~claim 1, wherein the epothilone(s) is used at a therapeutically effective amount from about 0.01/Kg/dose to about 100 mg/Kg/dose.

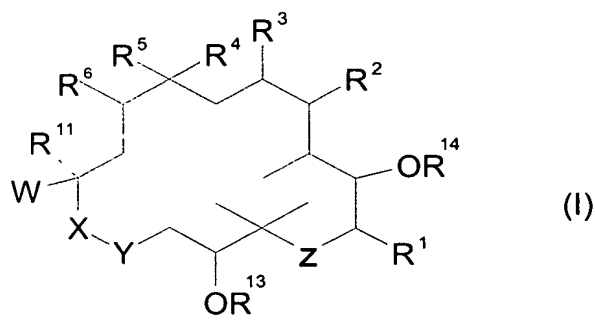
10. (Original) Method of treatment of a disease involving a neuronal connectivity defect comprising administering to an individual in need thereof a therapeutic effective amount of one epothilone or derivative thereof.

11. (Original) Method of treatment of a disease involving a neuronal connectivity defect comprising administering to an individual a therapeutically effective amount of at least one epothilone or derivative thereof in a pharmaceutical composition comprising at least a pharmaceutically acceptable carrier.

12. (Currently Amended) Method according to claim 10 ~~or 11~~, wherein the disease includes a psychotic or psychiatric disorder.

13. (Currently Amended) Method according to ~~any one of claims from 10 to 12~~ claim 10, wherein the epothilone or pharmaceutical compositions thereof is administered in combination with one or more agents useful in preventing or treating psychotic or psychiatric disorders.

14. (Currently Amended) Method according to ~~any one of claims from 10 to 13~~ claim 10, wherein the epothilone is ~~as defined in claims 3 to 9~~ a compound of formula (I):



wherein:

R¹ represents H, alkyl, alkenyl or alkynyl in C₁-C₆, aryl in C₆-C₁₀, aralkyl in C₇-C₁₅,

R², R³ represents each H or form together C=C double bond,

R⁴ represents H, C₁-C₆-alkyl in particular CH₃, fluoro substituted C₁-C₆ alkyl in particular CF₃ or CFH₂,

R⁵ and R⁶ form a C=C double bond or a three membered ring including O, S, NR⁷, CR⁸R⁹ with R⁷ being C(O)R¹⁰, SO₂R¹⁰ and R⁸, R⁹, R¹⁰ being independently H, halogen, C₁-C₆ alkyl, C₆-C₁₀ aryl, C₇-C₁₅ alkaryl,

R¹¹ being H, C₁-C₆ alkyl, C₆-C₁₀ aryl, C₇-C₁₅ alkaryl, and in particular H,

W represents C(R¹²)=CH, C(R¹²)=C(CH₃), C(R¹²)=CF or a bicyclic aromatic/heteroaromatic radical preferably a 2-methylbenzothiazol-5-yl radical, or a 2-methylbenzoxazol-5-yl radical or a quinolin-7-yl radical, with R¹² representing a heteroaromatic radical, preferably a 2-pyridinyl, a 2-substituted thiazol-4-yl or a 2-substituted oxazol-4-yl radical with substitution in 2-position by C₁-C₆ alkyl, pseudohalogen like CN or N₃, S-C₁-C₄-alkyl, O-C₁-C₆-alkyl, or C₁-C₆-alkyl substituted by OH, amino, halogen, pseudohalogen such as -NCO, -NCS, -N₃, O-(C₁-C₆)-acyl, O-(C₁-C₆)-alkyl or O-benzoyl,

X-Y represents O-C(=O), O-CH₂, CH₂-O, CH₂-C(=O),

Z represents C=O, S, S=O, SO₂,

R¹³ and R¹⁴ represents independently from each other H,

C₁-C₆-alkyl, (CO)R¹⁵ or C₁₋₄-trialkylsilyl, with R¹⁵ being H, C₁-C₆-alkyl, fluoro substituted C₁-C₆-alkyl,

and pharmaceutically acceptable salts thereof.